



Final Updates to the Leapfrog Hospital Safety Grade Methodology for Fall 2024

On May 21, 2024, Leapfrog published planned updates to the Hospital Safety Grade methodology and held a public comment period through June 7, 2024. We received a variety of thoughtful comments with different perspectives, which were helpful in finalizing the methodology. We thank all the commenters for their insights.

This document includes the final updates to the methodology as well as responses to the comments received. Additionally, Table 2 on pages 5-6 includes a summary of data sources and anticipated reporting periods for the fall 2024 Hospital Safety Grades. More information can be found on the Hospital Safety Grade website at <https://www.hospitalsafetygrade.org/for-hospitals/key-dates-and-information>.

SUMMARY OF CHANGES

Starting with the fall 2024 Hospital Safety Grade update, Leapfrog will update the Imputation Methodology for CPOE, BCMA, IPS, and Hand Hygiene measures for hospitals that do not submit a 2024 Leapfrog Hospital Survey by August 31, 2024. The methodology change comes under the guidance of Leapfrog's national expert panel, the research team at Johns Hopkins Medicine, and in response to stakeholder feedback.

FINAL UPDATE TO IMPUTATION METHOD FOR CPOE, BCMA, IPS, AND HAND HYGIENE

BACKGROUND

The Leapfrog Group aims to ensure that the public has timely, transparent, and trustworthy information about a hospital's patient safety performance. Leapfrog's always commits to using the best and most recent data publicly available to calculate Hospital Safety Grades.

To ensure the Hospital Safety Grade methodology continues to support these goals, Leapfrog's blue-ribbon Expert Panel, researchers at Johns Hopkins Medicine, and our internal team of experts annually review measures and methodology. The review includes research on current evidence and available data, as well as analysis of hospital performance trends and variables. As a result of this, the panel advised that Leapfrog modify the current imputation method, which is used to fill in missing data among hospitals that did not complete the most recent Leapfrog Survey.

Leapfrog published the planned imputation revisions and solicited public comments. After review of comments, Leapfrog is now finalizing the methodology changes effective for the fall 2024 release of the Hospital Safety Grade.

CHANGES TO IMPUTATION METHOD FOR CPOE, BCMA, IPS, AND HAND HYGIENE

1) New Step 1 Imputation (Does not apply to BCMA)

If the hospital had a score assigned by Leapfrog in the previous two rounds of grades (i.e., spring 2024, fall 2023), the hospital is assigned the most recent score on that measure in the current Hospital Safety Grade (i.e., fall 2024). This is a reduction from the previous methodology, which imputed scores from up to four previous rounds of grades. This will help ensure any historical data used in calculating the Safety Grade is reflective of hospital protocols within the past 2 years (e.g., the reporting periods for CPOE IPS, and Hand Hygiene on the 2023 Leapfrog Hospital Survey was 2023).





Note that Step 1 imputation will be temporarily paused for the BCMA measure. In 2024, Leapfrog expanded the BCMA Standard to include pre-operative and post-anesthesia care units in addition to med-surg units, critical care units, and labor and delivery units. Due to these changes, scores from the 2023 Leapfrog Hospital Survey are not an accurate representation of performance on the current measure and thus not suitable for Step 1 imputation.

2) New Step 2 Imputation

For hospitals that do not have historical data from the last two rounds of the Safety Grade (Step 2 imputation then applies), instead of imputing a score based on the cohort mean, hospitals will be assigned a point value that is equivalent to receiving "Limited Achievement" for that measure on the Leapfrog Hospital Survey (Table 1). This category assignment would reflect hospital commitment to transparency as a sign of genuine momentum for improvement. Hospitals that decline to complete the Survey should not inadvertently benefit when compared to hospitals that demonstrate, through transparency, they are on a pathway to achieve Leapfrog's high standards for patient safety.

Step 2 imputation for the IPS measure will only apply to hospitals that operate an adult or pediatric medical and/or surgical ICU or neuro ICU. A hospital’s ICU designation will be determined using the most recently available CMS Cost Report. Hospitals that report operating one or more medical, surgical and/or pediatric ICU beds in Worksheet S-3 Part 1 will be eligible for Step 2 Imputation.

Table 1. Step 2 Imputation Point Assignments Beginning Fall 2024

	Leapfrog Hospital Survey Performance Category	Corresponding Safety Grade Measure Score
CPOE	Limited Achievement 	15
BCMA	Limited Achievement 	25
IPS	Limited Achievement 	5
Hand Hygiene	Limited Achievement 	15

PUBLIC REPORTING OF IMPUTED MEASURE SCORES

Leapfrog will denote imputed measure scores, when applicable, on each hospital’s Safety Grade page of the public reporting website (<https://www.hospitalsafetygrade.org/>). Website users will be able to easily identify scores that were imputed.

RESPONSES TO PUBLIC COMMENTS

Four commenters supported the change to the imputation methodology.

We appreciate the feedback and agree that hospital commitment to transparency should be acknowledged as a sign of genuine momentum for improvement. Hospitals that decline to complete the Survey should not inadvertently benefit when compared to hospitals that transparently demonstrate they are on a clear pathway to achieve Leapfrog’s high standards for patient safety.

One commenter expressed concerns about the public not realizing a score was imputed on the Hospital Safety Grade website (www.HospitalSafetyGrade.org).

We appreciate this feedback and in response, will add a new denotation to the Hospital Safety Grade website to clearly indicate when a score for a measure has been imputed.

Two commentors expressed concerns about Step 2 Imputation misrepresenting the current procedures or infrastructure of the hospital to the public.

Hospitals eligible for Step 2 Imputation may or may not score higher if they complete a Leapfrog Hospital Survey, but without the data, Leapfrog will lean toward caution. Our analyses have shown that performance among hospitals that intermittently complete the annual Survey is lower than those hospitals that complete the Survey on an annual basis. The expert panel recognized that hospitals with a drop in performance may be incentivized to not report via the Leapfrog Hospital Survey and scores calculated using participating hospitals would misrepresent their true performance.

We encourage hospitals to complete the Leapfrog Hospital Survey so they can receive credit for implementing processes that protect patients and save lives. The Survey continues to be free and open from April 1 to November 30, with substantial technical assistance available from Leapfrog's dedicated Help Desk.

Two commentors requested that the proposed changes be delayed until spring 2025 to allow hospitals time to complete the Leapfrog Hospital Survey.

While we do strongly encourage hospitals to submit their Survey by the Submission Deadline of June 30, 2024, hospitals that wish to have 2024 Leapfrog Hospital Survey data used in their fall 2024 Safety Grade will have until August 31 to submit or resubmit their Survey. Hospitals that wish to have 2024 Leapfrog Hospital Survey data used in their spring 2025 Safety Grade will have until November 30 to submit their Survey. Meanwhile, hospitals that completed a 2023 Leapfrog Hospital Survey will be eligible for Step 1 Imputation.

Four commentors opposed penalizing hospitals that choose not to devote resources to completing a voluntary Survey each year and suggested that they be allowed to opt out of the Hospital Safety Grade.

The Expert Panel noted that participation in the Leapfrog Hospital Survey has grown exponentially in recent years, with 78% of inpatient beds, at Safety Grade eligible hospitals, represented in recent Leapfrog Survey data. As such, a hospital's choice to decline participation in the Survey is itself a data point. A key element of the Hospital Safety Grade is that all eligible hospitals are compared to hospitals nationwide, and non-reporting hospitals exempt themselves from this peer benchmarking and from the responsibility and recognition in the community that comes with full transparency. Without providing the information their peer hospitals do through Survey submission, evidence does not justify awarding that hospital additional points when calculating the Hospital Safety Grade.

Regarding the suggestion that Leapfrog allow hospitals to opt out of earning a Hospital Safety Grade, this would be contrary to Leapfrog's nonprofit mission. As long as patients entrust their lives to American hospitals, Leapfrog will provide the information patients and families need to get the safe care they deserve.

Table 2. Planned Fall 2024 Leapfrog Safety Grade Measures, Data Sources, And Anticipated Reporting Periods

PROCESS/STRUCTURAL MEASURES (12)				
Measure Name	Primary Data Source	Reporting Period	Secondary Data Source	Reporting Period
Computerized Physician Order Entry (CPOE)	2024 Leapfrog Hospital Survey	2024	Imputation Model Applied	N/A
Bar Code Medication Administration (BCMA)	2024 Leapfrog Hospital Survey	2024	Imputation Model Applied	N/A
ICU Physician Staffing (IPS)	2024 Leapfrog Hospital Survey	2024	Imputation Model Applied	N/A
Safe Practice 1: Culture of Leadership Structures and Systems	2024 Leapfrog Hospital Survey	2024	N/A	N/A
Safe Practice 2: Culture Measurement, Feedback & Intervention	2024 Leapfrog Hospital Survey	2024	N/A	N/A
Total Nursing Care Hours per Patient Day	2024 Leapfrog Hospital Survey	2024	N/A	N/A
Hand Hygiene	2024 Leapfrog Hospital Survey	2024	Imputation Model Applied	N/A
H-COMP-1: Nurse Communication	CMS	10/01/2022 - 09/30/2023	N/A	N/A
H-COMP-2: Doctor Communication	CMS	10/01/2022 - 09/30/2023	N/A	N/A
H-COMP-3: Staff Responsiveness	CMS	10/01/2022 - 09/30/2023	N/A	N/A
H-COMP-5: Communication about Medicines	CMS	10/01/2022 - 09/30/2023	N/A	N/A
H-COMP-6: Discharge Information	CMS	10/01/2022 - 09/30/2023	N/A	N/A

OUTCOME MEASURES (10)				
Measure Name	Primary Data Source	Reporting Period	Secondary Data Source	Reporting Period
Foreign Object Retained	CMS	07/01/2021 - 06/30/2023	N/A	N/A
Air Embolism	CMS	07/01/2021 - 06/30/2023	N/A	N/A
Falls and Trauma	CMS	07/01/2021 - 06/30/2023	N/A	N/A
CLABSI	2024 Leapfrog Hospital Survey	01/01/2023 - 12/31/2023	CMS	10/01/2022 - 09/30/2023
CAUTI	2024 Leapfrog Hospital Survey	01/01/2023 - 12/31/2023	CMS	10/01/2022 - 09/30/2023
SSI: Colon	2024 Leapfrog Hospital Survey	01/01/2023 - 12/31/2023	CMS	10/01/2022 - 09/30/2023
MRSA	2024 Leapfrog Hospital Survey	01/01/2023 - 12/31/2023	CMS	10/01/2022 - 09/30/2023
C. Diff.	2024 Leapfrog Hospital Survey	01/01/2023 - 12/31/2023	CMS	10/01/2022 - 09/30/2023
PSI 4: Death rate among surgical inpatients with serious treatable conditions	CMS	07/01/2020 - 06/30/2022	N/A	N/A
CMS Medicare PSI 90: Patient safety and adverse events composite*	CMS	07/01/2020 - 06/30/2022	N/A	N/A

*Note: CMS calculates PSI 90 using the ten (10) component PSIs listed above. While scores for each of the 10 component PSIs will NOT be used to calculate fall 2024 Hospital Safety Grades, they will be publicly reported on the Hospital Safety Grade [website](#).